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EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT PAPER NUMBER

2652

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/615,837

Applicant(s)

SHIGEMORI, TOSHIHIRO

Examiner

Michael V Battaglia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5 and 6 is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

This action, dated March 18, 2004, is in response to the applicant's amendment filed December 18, 2003. Claims 1-6 are pending.

#### *Drawings*

1. The replacement drawings for Figs. 6, 15 and 16 were received on December 23, 2003. These drawings are acceptable.

#### *Specification*

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al (hereafter Saito) (US 5,377,178).

Saito discloses a data recording clock signal generator (Col. 28, lines 23-61) that generates a recording clock signal synchronous with a wobble signal used for recording data on an optical disk having a data recording track wobbled by the wobble signal having predetermined frequency components (Col. 3, lines 40-46 and Col. 5, lines 35-43), said data recording clock generator comprising: a wobble signal extracting unit that extracts the wobble signal (Fig. 3 and Fig. 15, element 606); a recording clock signal dividing unit that generates a divided clock signal obtained by dividing the frequency of the recording clock signal (Fig. 24, element 1210); a phase difference signal generating unit that generates a phase difference signal as a result of phase comparison between the wobble signal and the divided clock signal (Fig. 24, element 1200); a frequency control signal generating unit that generates a frequency control signal based on the phase difference signal generated by the phase difference signal generating unit (Fig. 24, elements 1202 and 1204); and a recording clock signal generating unit that generates the recording clock signal having a frequency controlled in accordance with the frequency control signal generated by the frequency control signal generator (Fig. 15, element 610 and Fig. 24, element inside the dashed lines), wherein the recording clock signal dividing unit is provided with a frequency dividing rate setting unit that sets a reference frequency dividing rate by which the frequency of the recording clock signal is divided and a frequency dividing rate different from the reference frequency dividing rate, following predetermined procedures (Fig. 24, elements 1212 and 1214), and wherein a phase relationship between the wobble signal and the recording clock signal can be changed by a unit smaller than one clock cycle of the recording clock signal (Col. 19, lines 47-52 and Col. 28, lines 53-56). The examiner interprets the initial frequency dividing rate as the reference frequency dividing rate and the frequency dividing rates different from the initial frequency dividing rate as being frequency dividing rates different from the reference frequency dividing rate. The examiner notes that the

PLL circuit inside the dashed lines of Fig. 24 inherently has an initial frequency dividing rate because an initial frequency dividing rate is needed for the PLL to be a stable oscillating source. Further the PLL is an analog circuit that adjusts phase relationship by an amount needed to align the phases of the signals. The adjustment unit is as small or large as misalignment between the phase of the signals and certainly includes an adjustment unit smaller than one clock cycle of the recording clock signal.

4. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Fushimi et al (hereafter Fushimi) (US 6,088,307).

Fushimi discloses a data recording clock signal generator that generates a recording clock signal synchronous with a wobble signal used for recording data on an optical disk having a data recording track wobbled by the wobble signal, which has predetermined frequency components (Col. 4, lines 15-19 and Fig. 1), and on which address information and a synchronizing signal are phase-modulated and superimposed (Col. 1, lines 26-30 and Col. 4, 15-19), said data recording clock signal generator comprises: a wobble signal extracting unit that extracts the wobble signal (Figs. 5-6, element 41); a recording clock signal dividing unit that generates a divided clock signal obtained by dividing a frequency of the recording clock signal (Fig. 6, element 56); a phase difference signal generating unit that generates a phase difference signal as a result of a phase comparison between the wobble signal and the divided clock signal (Fig. 6, element 95); a frequency control signal generating unit that generates a frequency control signal based on the phase difference signal generated by the phase difference signal generating unit (Fig. 6, elements 96-97); a recording clock signal generating unit that generates the recording clock signal having a frequency controlled in accordance with the frequency control signal generated by the frequency control signal generating unit (Fig. 6, element 55); and a masking unit that prevents the phase

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difference signal generating unit from generating the phase difference signal at any timing when either the address information or the synchronizing signal is phase-modulated on the optical disk (Figs. 5-6, element 35 and Col. 11, lines 7-19). The examiner interprets the shift in position between the first and second identification information (Figs. 3 and 4A, elements 21 and 22) as being indicative of phase modulation. Address information (Fig. 4B, element AM) is part of the first and second identification information and is therefor phase-modulated. The masking unit (Figs. 5-6, element 35) prevents the phase difference signal generating unit (Fig. 6, element 95) from generating the phase difference signal at any timing when the address information, which is part of the identification information, is phase-modulated on the optical disk (Col. 11, lines 10-19).

#### ***Allowable Subject Matter***

5. Claims 2-3 and 5-6 are allowable over the prior art of record.

#### ***Response to Arguments***

6. Applicant's arguments, see page 15, filed December 13, 2003, with respect to the objection to claims 5 and 6 have been fully considered and are persuasive. The objection to claims 5 and 6 has been withdrawn.

7. Applicant's arguments, filed December 13, 2003, with respect to the rejection of claim 1, see page 12, line 18 to page 13, line 7, have been fully considered but they are not persuasive. Saito discloses the invention recited in claim 1 including the ability to change a phase relationship between the wobble signal and the recording clock signal by a unit smaller than one clock cycle of the recording clock signal for the reasons stated above. In regard to Applicant's argument that Saito does not disclose changing the phase relationship by any unit, the examiner reiterates that the

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PLL circuit (Fig. 24, element inside dashed lines) is an analog circuit that adjusts a phase relationship by a unit according to an amount of misalignment between the signals.

8. Applicant's arguments, filed December 13, 2003, with respect to the rejection of claim 4, see page 13, line 8 to page 14, line 5, have been fully considered but they are not persuasive.

Fushimi discloses the invention recited in claim 4 for the reasons stated above. In regard to Applicant's argument that the data recording clock signal generator of Fushimi prevents generation of a phase difference signal when processing a information portion of a disc that does not include a wobble signal, the examiner interprets the shift in position between the first and second identification information (Figs. 3 and 4A, elements 21 and 22) in the information portion as being indicative of phase modulation and notes that claim 1 does not claim that the portion of the disc containing the address information and the synchronizing signal includes a wobble signal. Further, Applicant's argument that in the data recording clock signal generator of Fushimi the phase difference signal generating unit is not prevented from generating a phase difference signal based on whether the address information or a synchronizing signal is phase modulated on the optical disc is moot because claim 4 does not claim the basis for the prevention of phase difference signal generation and only claims the timings at which the phase difference signal generation is prevented.

### *Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Battaglia whose telephone number is (703) 305-4534. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Battaglia



W. R. YOUNG  
PRIMARY EXAMINER